

HISTORIC AMERICAN ENGINEERING RECORD
INDEX TO PHOTOGRAPHS

HAER
NJ,
14-DOV.V,
2-D-

Picatinny Arsenal, 600 Area
Test Areas District
One mile north of I-80 on State Rte. 15
Dover Vicinity
Morris County
New Jersey

HAER NJ-36D

Jet Lowe, Photographer, 1983.

- NJ-36D-1 LOOKING NORTH TOWARD BUILDING NO. 602, BLACK POWDER BLENDER. POWDER TO BE BLENDED IS BROUGHT IN ON UPPER LEVEL, WHERE IT IS POURED INTO BLENDING MACHINE. BLENDED POWDER IS TRANSPORTED IN PUSH CARTS FROM LOWER LEVEL TO MAGAZINE. NOTE THAT ALL LIGHTS FOR BUILDING ARE MOUNTED OUTSIDE AND SHINE THROUGH WINDOWS. BUILDING ITSELF IS CONSTRUCTED OF WOOD.
- NJ-36D-2 LOOKING SOUTH TOWARD BUILDING NO. 602, BLACK POWDER BLENDER. ALL LIGHTING IS ON EXTERIOR OF BUILDING TO MINIMIZE EXPLOSION HAZARD. ALL METAL CONDUIT AND PIPING IS GROUNDED.
- NJ-36D-3 VIEW LOOKING WEST AT BUILDING NO. 602 FROM ELEVATED COVERED WALKWAY. WALKWAYS BEYOND BUILDING NO. 602 LEAD TO BLACK POWDER MAGAZINE. BUILDING NO. 602-A, GENERAL PURPOSE MAGAZINE, VISIBLE THROUGH WALKWAY IN LEFT BACKGROUND.
- NJ-36D-4 BUILDING 604-D, DROP TOWER, LOOKING NORTH.
- NJ-36D-5 BUILDING 604-D, DROP TOWER, VIEW DOWN INTO TEST PITS FROM STAIRWAY LANDING.
- NJ-36D-6 BUILDING 604-F, BULL PEN, VIEW DOWN FROM DROP TOWER, LOOKING SOUTHWEST.
- NJ-36D-7 BUILDING 604-F, INTERIOR OF BULL PEN SHOWING TESTING STAND AND HEAVY WOOD LINING ON CONCRETE WALLS. STEEL PLATE ABOVE TEST STAND DEFLECTS SHRAPNEL, SCREEN FURTHER HELPS TO CONTAIN PARTICLES. ONLY SMALL EXPLOSIVES WERE TESTED HERE (GRENADES, MINES, BOMB FUZES, ETC.).

NJ-36D-8 BUILDING NO. 611. INTERIOR OF ARMOR PLATE-LINED TESTING CHAMBER. $\frac{1}{2}$ " THICK ARMOR PLATING BOLTED TO WALLS, FLOOR AND CEILING. WALLS CONSTRUCTED OF 24" THICK REINFORCED CONCRETE. VENTS IN CEILING EXHAUST SMOKE FROM EXPLOSIONS. SMALLEST WHEELED VEHICLES HOLD DUDS.

NJ-36D-9 BUILDING NO. 620-B, FRICTION PENDULUM BUILDING. 29-FOOT DROP TOWER SITS BEHIND BLAST SHIELD IN FRONT OF BUILDING.

NJ-36D-10 BUILDING NO. 620-B. FRICTION PENDULUM BUILDING, INTERIOR VIEW SHOWING PENDULUM AND FRAME.

NJ-36D-11 BUILDING NO. 620-B. INTERIOR VIEW LOOKING NORTH, SHOWING PENDULUM AND FRAME IN FOREGROUND, SHIELD FOR OPERATORS IN BACKGROUND. FRICTION TEST IS OBSERVED FROM BEHIND BLAST SHIELD BY A SERIES OF MIRRORS. ANVIL IN CENTER OF PENDULUM FRAME HOLDS EXPLOSIVE WHOSE SENSITIVITY TO FRICTION IS TO BE TESTED. PANS ON EITHER SIDE CATCH ANY UNBURNT EXPLOSIVE SLUNG FROM ANVIL DURING TEST TO PREVENT EXPLOSIVE HAZARD.

NJ-36D-12 BUILDING 621, INTERIOR, GROUND FLOOR, LOOKING NORTHWEST AT SCREENING MACHINE THAT REMOVES SHELL FRAGMENTS. METALLIC DUST REMOVED BY MAGNETIC SEPERATOR UNDERNEATH SCREEN. SAWDUST IS RETURNED TO SAWDUST HOPPER BY ELEVATOR. HOODS OVER SCREENING MACHINE AT WORKBENCH REMOVE FINE SAWDUST.

NJ-36D-13 BUILDING NO. 621, INTERIOR, TOP OF BLASTING TUB UNDERNEATH SAWDUST HOPPER. BLASTING TUB HAS DOUBLE WALLS OF $\frac{3}{4}$ " THICK STEEL ARMOR PLATE. CHARGE TO BE TESTED IS BURIED IN SAWDUST WITH FLAME RESISTANT CHEMICALS. ELEVATOR BEHIND TUB CARRIES SAWDUST BACK TO TOP OF SAWDUST HOPPER AFTER TEST IS COMPLETED AND SAWDUST IN BLASTING TUB HAS BEEN SIFTED FOR SHELL FRAGMENTS. LOUVERS IN WALLS ARE HINGED FREELY SO THEY OPEN TO RELIEVE BLAST PRESSURE DURING A TEST.

NJ-36D-14 S634, SLUG BUTT. VIEW LOOKING NORTHEAST.

NJ-36D-15 S634, SLUG BUTT. VIEW LOOKING SOUTHWEST.